

Chemistry professor presents on solar panel to royal couple

Wanda Vivequin

On July 8, University of Alberta chemistry professor and NINT scholar Jillian Buriak was given the chance to show off her research into low-cost solar panels to the royal couple during their final hours in Canada.

When did you find out you would be presenting to the royal couple?

I got a call in May from the Office of the Vice-President (External) at the U of A asking if I was available on July 8 and not much more. I then got an email two weeks later from the chief of staff of the minister of the environment, Robert Renner, who incidentally was a student I taught and is a U of A graduate. The chief of staff, Jeff Kasbrick, explained to me then that I would be presenting to the duke and duchess during their visit to Calgary about the research we do in the "Buriak and Brett Groups."

How did you feel about being selected?

I was really excited to be asked as it was so soon after the royal wedding and everyone was talking about "Kate and William." I was actually a bit nervous to be honest. There were going to be four of us presenting for three minutes each.

Where was the event?

The event was held at the Enmax Centre in the Calgary Zoo. It's an incredible venue.

What kind of coaching did you get in royal protocol?

There was not a lot of coaching but it was great to have Jeff Kasbrick to have to go over the questions with about the event and what was expected. He was really helpful in the lead up to the event.

What project did you them introduce to?

I presented a poster on the research we do into the production of more

Continued on page 3

Penguin philosopher king



A penguin dropped by the Department of Philosophy-run Eurekamp! July 5.

Michael Davies-Venn

University's impact on city clear at Salute to Excellence

Michael Brown

Chorale Saint-Jean led a strong University of Alberta contingent, which included four current and former professors, at Edmonton's 60th annual Salute to Excellence Hall of Fame Induction Ceremony on June 14 at the Winspear Centre for Music.

The Salute to Excellence honours Edmontonians who have contributed to the diverse fabric of the city by inducting them into three halls of fame: community service, sports, and arts and culture.

"Congratulations to all the recent inductees and award winners," said President Indira Samarasekera. "I am very proud of the Chorale Saint-Jean and the four University of Alberta professors who were recognized at this event. Our presence at the Salute to Excellence speaks to the U of A's impact within Edmonton, as well as our commitment to engage with the greater community."

The Campus Saint-Jean-based choir, which has been the inspirational musical voice of the fran-

cophone community in Western Canada since 1937, received the Edmonton Cultural Hall of Fame Award of Distinction. This award is granted to a group or person whose journey entails such a unique contribution to community spirit as to merit an award that stands apart.

Edward (Ted) Blodgett, famed poet and professor emeritus of comparative literature, who taught at the U of A and Campus Saint-Jean for 34 years and for the past year held the Louis Desrochers Chair in Canadian Studies, was inducted into Edmonton's Arts and Culture Hall of Fame, as were two Faculty of Arts professors Catherine Burgess and Jan Selman.

A winner of the Governor General's Award for poetry in 1996, Blodgett is renowned for his work in both English and French. He has had 17 books of poetry published, and six of literary criticism. Blodgett was Ed-

monton's Poet Laureate from 2007 to 2009, a period when he produced memorable poems for the Louise McKinney Park public art project. He also served as chair of the board of the Edmonton Arts Council.

Since graduating from the U of A in 1975, Burgess, a sculpture professor, has had more than 25 solo exhibitions. She has participated in more than 60 group exhibitions in Canada, the

United States and

Great Britain.

For more than 35 years, Selman has been a groundbreaking leader in theatre. Her style of popular theatre has given voice to those less fortunate, including marginalized community groups, prison inmates, sexual assault

victims and First Nations citizens. Selman just completed 10 years as chair in the Department of Drama at the U of A, and was recently awarded the U of A Excellence in Leadership Award.

Murray Smith, professor emeritus in physical education and recreation, was elected to the Edmonton Sports Hall of Fame as a builder of sport.

In 1958, Smith began an illustrious three-decade academic career at the U of A. He coached the Golden Bear's football team for two years starting in 1960, winning the Canada West in his first year. He also served as an assistant coach on the 1980 national champion football team.

As swimming coach at the U of A, Murray led the Bears swim teams to eight conference championships. He was named Canadian Coach-of-the-Year in 1967. Elected to the Alberta Sports Hall of Fame in 2006, Smith also made an impact with his expertise in sports psychology. Major sports organizations across the country have sought his services, including the NHL's Edmonton Oilers, the Memorial Cup champions the Kelowna Rockets and numerous national and Olympic athletes.

Gene Dub, a U of A alumnus and architect of Edmonton's City Hall, was also inducted into the Arts and Culture Hall of Fame. ■

“Our presence at the Salute to Excellence speaks to the U of A's impact within Edmonton, as well as our commitment to engage with the greater community.”

Indira Samarasekera

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Wish comes true for university stargazers

Michael Brown

The University of Alberta joined the space race in a big way July 5 when the Centennial Centre for Interdisciplinary Science opened the campus' newest observatory.

The observatory will house three telescopes, which have a range of diameters of 12, 14 and 20 inches.

The 12-inch telescope dates back to 1967, and has been used for public outreach since it was installed on the roof of the former Avadh Bhatia Physics building in 1977. This is the telescope that was on the roof of the Fine Arts Building while CCIS was being built.

The 14-inch Schmidt-Cassegrain Celestron was donated to the U of A by Peter and Eva Pocklington in the late 1980s, and features a solar filter that will allow students to observe the sun. The Royal Astronomical Society Edmonton-Centre is providing a special solar filter telescope as a long-term loan to the observatory, which will sit "piggyback" on the Pocklington telescope.

The 20-inch telescope was designed and built by technicians in the Department of Physics in 1977. It was located

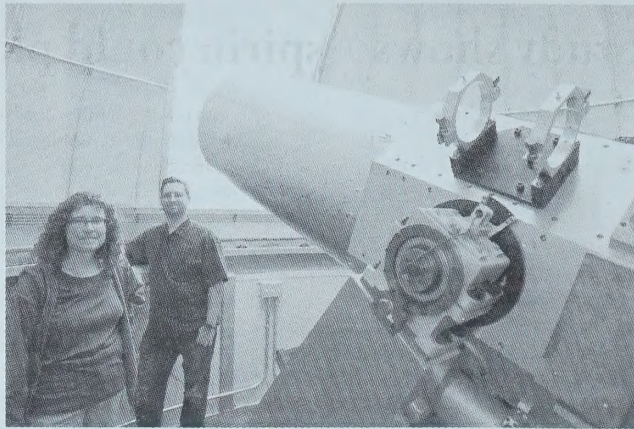
on land owned by the U of A near the town of Devon.

"This observatory makes it possible to bring students right to where the telescopes are," said Sharon Morsink, professor in the Department of Physics. "In almost every other area of science, when students learn the science, they learn the practical aspects of it; they have labs where they do experiments, and through the experiments they do follow an active learning approach. Astronomy is one of the few fields at the university that hasn't had those types of labs."

The arrival of the observatory coincides with the execution of a U of A Teaching and Learning Enhancement Fund project entitled *Enhancing Astronomy Education through On Campus Telescopes*, submitted by Morsink and fellow physicists Craig Heinke and Gregory Sivakoff.

The goal of the project, which received \$55,500 in funding, is to transform the CCIS Observatory into a world-class undergraduate research facility where students will learn how to use telescopes and to design observing research projects using the university's telescopes.

Morsink says this will be done by



Sharon Morsink and Gregory Sivakoff stand in the new observatory, located atop the Centennial Centre for Interdisciplinary Science.

developing telescope-based laboratory projects that will be added to five existing physics and astronomy courses, which have a total enrolment of about 340 students each year.

She says the plan is to hire undergraduate and graduate students to test out the equipment, to write users' manuals and to develop laboratory exercises and projects using the telescopes, and assist in teaching the new telescope-based labs.

"Research in the classroom is the best way for students to understand what they're doing," said Morsink. "It brings in a new dimension that goes beyond textbooks."

"Students have a better appreciation for what they're learning when

they actually do it."

The teaching and learning fund, launched in 2006, is a key initiative in support of the U of A's *Dare to Deliver* vision document. The purpose of the fund is to support those engaged in teaching at the university, allowing them to improve their teaching skills, enhance their understanding of teaching and learning processes and provide teaching environments to optimize the student experience.

Morsink says the fund is a wonderful university initiative that takes some of the focus off of pure research and directs it towards teaching. "All these projects [are] fantastic ways of improving the learning experience for students." ■

Province ups ante in cancer fight

Michael Brown

The instance of a pancreatic cancer diagnosis is just about equal to the disease's mortality rate. Looking to reverse this bleak outlook and increase outcomes across all types of cancer diagnosis, Alberta Innovates – Health Solutions, together with the Alberta Cancer Foundation, has announced \$3 million in funding for 13 University of Alberta studies.

One of the award winners is Jennifer Spratlin, a gastrointestinal cancer specialist at the U of A, who was awarded two grants worth more than \$300,000 for clinical studies focused on better treatments for pancreatic cancer.

"The five-year survival rate for this cancer is about five per cent," said Spratlin. "That means this cancer is fatal for 95 per cent of people. We absolutely want to offer better outcomes for our patients."

Spratlin's clinical research team is spearheading a clinical trial in several cities across Canada, aiming to enrol 150 patients over the next two years. The trial will compare two existing treatments for pancreatic cancer.

Spratlin's team will test patients' tumours to identify whether they have a specific transporter protein that opens the door for a common chemotherapy to attack pancreatic cancer cells. She says she hope the trial results will allow physicians to see if this protein better determines what chemotherapy drug is best suited for use in each individual patient.

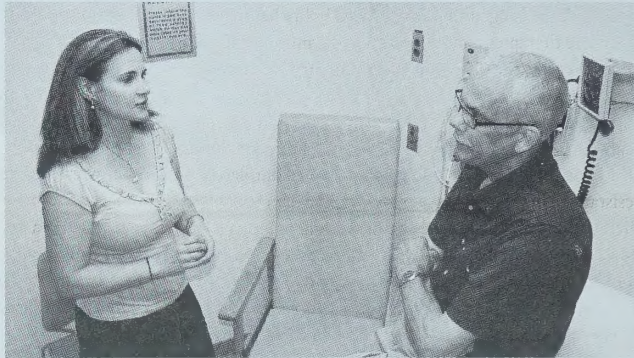
"We want to know how we can better personalize treatment for pancreatic cancer, both when we are trying to cure it and for those people who, unfortunately, have seen the disease spread and are just trying to extend their life," said Spratlin. "It would be nice to have a test that we could do up front for people that allows us to give patients the right treatment for them and potentially not be expose them to a drug that won't

work for them."

Although pancreatic cancer is the 10th most common form of cancer, it is the fourth leading cause of cancer death. Spratlin says that surviving pancreatic cancer is dependent on whether or not the cancer is operable, which occurs in just 20 per cent of diagnoses. After that, survival is contingent on the effectiveness of chemotherapy, but the chances of surviving past five years are still slim.

Spratlin says a team of researchers at both the Cross Cancer Institute and the Department of Oncology at the U of A Hospital have spent years working towards these clinical trials, performing all the pre-clinic work, which included identifying the transporter protein.

"It's really nice to see the work that truly is from the bench to the bedside is



Jennifer Spratlin, a gastrointestinal cancer specialist at the U of A, talks with pancreatic cancer survivor Ken Ritz.

being done, all at the University of Alberta," said Spratlin, who credits much of the background work to her mentors, university oncologists Carol Cass and John Mackey. "Collaboration is so important. If we don't use what they're doing, we're walking similar paths, but

you need that cross point where really important key discoveries occur."

All told, AIHS and Alberta Cancer Foundation, in partnership with Alberta Health and Wellness, awarded \$7 million in research funding spread over three years to 27 projects province wide. ■

Recent AIHS & Alberta Cancer Foundation cancer research projects at the U of A

Alberta Cancer Operating Grants (\$150,000/year for three years)

- Robert Ingham, professor, Department of Medical Microbiology and Immunology – The Function and Regulation of JunB in ALK+ ALCL.
- Kurian Joseph, assistant professor of radiation oncology, Department of Oncology – Preventing or Reducing Acute and Late Effects of Radiation Therapy in Patients with Solid Tumors. Advanced Technology Meets Clinical Outcomes.
- Roger Leng, professor, Department of Laboratory Medicine and Pathology – Molecular Mechanism of Negative Regulation of Tumor Suppressor p53.

Alberta Cancer High Risk for High Returns Grants (Up to \$150,000/year for two years)

- David Evans, professor and chair , Department Medical Microbiology and Immunology – Tuning the Oncolytic Properties of Vaccinia Virus through Mutation of Proteins Catalyzing Nucleotide Biosynthesis.
- Michael Sawyer, associate professor, Department of Oncology – Mechanisms of Tyrosine Kinase Inhibitor Toxicity.
- Jennifer Spratlin, assistant professor, Department of Oncology – A Multicentre, Randomized, Open Label, Phase III Study of Gemcitabine Versus FOLFOX in the First Line Setting for Metastatic Pancreatic Cancer Patients

Using Upfront Human Equilibrative Nucleoside Transporter 1 (hENT1) Biomarker Testing

- Hasan Uludag, professor, Department of Chemical and Materials Engineering – siRNA Based Molecular Therapy for Reversal of Drug Resistance in Leukemia.
- Frank Wuest, associate professor, Department of Oncology – In Vivo Chemistry for Pretargeted Molecular Imaging and Therapy of Cancer.

Cancer Bridge, Pilot and Limited Term Project Grants (\$50,000 for one year)

- YangXin Fu, professor, Department of Obstetrics and Gynecology – Role of Notch in Ovarian Cancer Stem Cells.
- Andrew Shaw, professor, Department of Oncology - Bcl10: A Novel Role in DNA Repair.
- D. Alan Underhill, associate professor, Department of Oncology – Regulation of PAX3 Structure and Activity in Melanoma.
- Robert Ingham, professor, Department of Medical Microbiology and Immunology – Does the Granzyme B Serine Protease Contribute to the Invasiveness or Tumorigenicity of Anaplastic Large Cell Lymphoma-positive, Anaplastic Large Cell Lymphoma?
- Jennifer Spratlin, assistant professor, Department of Oncology – Biomarker Directed Adjuvant Therapy for Resected Pancreas Cancer.

Study shows Aspirin could play role in preventing heart attacks in diabetics

Sandra Pysklywyc

In some cases, an apple a day may keep the doctor away, but for people with diabetes, regular, over-the-counter Aspirin may also do the job.

A new study by University of Alberta researcher Scot Simpson has shed light on the use of Aspirin as a preventative measure for cardiovascular disease and reoccurrence in patients with diabetes.

The study collected data from clinical trials that looked at whether taking Aspirin as a course of treatment would prevent a first or recurrent heart attack or stroke.

Using information from diabetic patients in these studies, Simpson discovered that patients

with previous cardiac episodes who were taking a low daily dose of Aspirin had very little benefit in terms of prevention of a second heart attack or a decreased risk of mortality. However, in patients taking higher doses of Aspirin, the risk of a repeat heart attack and/or death was significantly lower.

"We took all of the data from 21 studies and focused specifically on diabetic patients who had suffered a previous heart attack or stroke to measure the ability of Aspirin to prevent a second event. We found that, if those patients took up to 325 milligrams of Aspirin per day, they had a 23 per cent lower risk of death," said Simpson.

Simpson, an associate professor in the Faculty of Pharmacy and Pharmaceutical Sciences, says that people with diabetes are at an increased risk of cardiovascular disease, and that there is evidence

that suggests as much as 60 per cent of deaths in diabetics are attributable to heart disease.

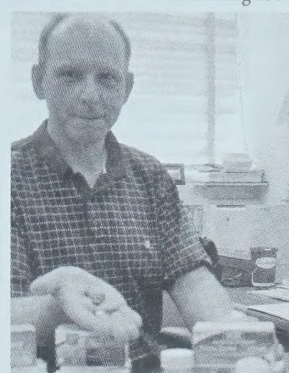
Simpson says he always suspected Aspirin dosage could play a role in treating cardiovascular disease in diabetics and felt that, because Aspirin is an over-the-counter medication, it's something that pharmacists could have an active role in administering.

"The pharmacists' best role for chronic disease management is working proactively with physicians and patients," said Simpson. "Whether that means

working directly with the physician, and consulting about prescribed medications, or

when the patient is deciding about whether or not to take Aspirin as part of a treatment plan, pharmacists can have a significant, positive impact."

Simpson's study was recently published in the *Journal of General Internal Medicine*. Other researchers from the U of A include John-Michael Gamble, in the School of Public Health; Laurie Mereu, in the Faculty of Medicine & Dentistry, and Thane Chambers, in Library Services. ■



Scot Simpson

Protein discovery could aid cardiovascular disease cure

Quinn Phillips

A multidisciplinary research team in the Faculty of Medicine & Dentistry has taken a big step towards understanding the cause and potential cure for a deadly cardiovascular disease.

Evangelos Michelakis, a cardiologist in the Department of Medicine, and his graduate student Gopinath Sutendra, along with fellow researchers in the faculty and collaborators from Laval and Yale universities, found that a protein called Nogo is critical in the development of pulmonary arterial hypertension.

This condition causes high blood pressure in the arteries of the lungs and leads to heart failure and death. Available therapies may alleviate some symptoms but they cannot reverse the disease and prolong survival of the patients.

"Mice with pulmonary arterial hypertension had very high levels of Nogo in their lung arteries, but animal models that were genetically lacking Nogo were completely resistant to developing the disease," said Michelakis. "New therapies are planned in other diseases where Nogo is important, like spinal-cord injury. Such therapies could be applied to pulmonary arterial hypertension."

In addition to work done in laboratory models, the research team found that the level of Nogo was also high in arteries of patients with pulmonary arterial hypertension. Michelakis took samples from 41 patients at his pulmonary hypertension clinic and compared it to 26 patients who didn't have the disease.

"We showed that Nogo levels were higher in pulmonary arterial hypertension," said Michelakis. "We also found the sicker the patient was, the higher the levels. This might be an important biomarker for the disease. A lab test could show us how severe the disease is or whether the disease is going to get worse."

This is a "very satisfying" step forward, according to Sutendra, because it creates a platform on which several experimental therapies might be developed because many scientists are studying Nogo.

"We believe that by bringing along these [spinal cord and neurology] colleagues into the field of pulmonary

hypertension, we'll contribute to accelerating knowledge and discovery of new therapies in this disease," said Michelakis.

Currently the Michelakis lab is testing molecules that can inhibit Nogo. They are having preliminary success in their laboratory models.

"As soon as we complete these studies and we publish them then we can try them in humans," said Michelakis. "A lot of these things we can try have already been used in humans for other conditions."

The researchers' latest findings were published in the June 22 edition of *Science Translational Medicine* and show for the first time that Nogo causes suppression of mitochondrial function in cells, and could explain why metabolism is altered in lung arteries. These findings could be important to many other conditions where Nogo is involved, including cancer or diseases of the nervous system.

Michelakis has attracted international attention for other work—he discovered that dichloroacetate, or DCA, a relatively non-toxic, inexpensive pharmaceutical, could have the potential to treat some types of cancer. Michelakis was able to alter the metabolism of tumours (change the way tumours generate energy) by targeting the mitochondria, the energy producing units in cells. ■



Evangelos Michelakis and Gopinath Sutendra (Supplied photo)

Royal lesson in solar cells

Continued from page 1

affordable solar cells, and let them hold demonstration plastic solar cells that our team made for the event; we made plastic cells in the shapes of leaves, and a Canadian flag to demonstrate their versatility. The panels we are developing are as thin as paper and will be able to be rolled out of production like newspaper and have enormous application for the developing world.

Why do you think your research was selected to be presented?

I think in a province like Alberta where there is so much focus on the oil sands, the Government of Alberta was eager to show off some of the research work they support in alternative energy like the solar panels our team works on. It was definitely another way to get the solar message out.

What kinds of questions were asked by the royal couple about your work?

Prince William asked me when the technology was likely to be available and Catherine commented on the applicability of this technology for the developing world but also asked me if it can be used on a boat—nudging her husband as she did.

What was their reaction to your work?

It was incredible as it was just me and them for three minutes and I was amazed at how focused the royal couple were when I presented to them. It was remarkable. As it was a sunny day in Calgary I mentioned to them how the solar panels would work well in a place like the backcountry Skoki Lodge where

my family goes every year, a fact they could relate to that since they had just stayed there the night before.

Who else presented from the U of A?

The Kenya Ceramic Project, which is a health pilot project aimed at introducing innovative ceramic water filters and high-efficiency wood burning stoves to rural areas of Kenya. The project started in 2007 and is led by students and alumni from the University of Alberta and International Health Initiatives by Medical Students.

What did you wear?

I was going to wear a nice skirt suit but I was in a bike accident a few weeks ago and my legs were pretty scraped up, so I opted for a black pant suit and green shirt in the spirit of my presentation. It really was a great honour and it was not until afterwards when I replayed the whole presentation that I wished I had not been quite so nervous. It was a really wonderful experience and they are really a remarkable couple. ■



The Duke and Duchess of Cambridge talk with Jilian Buriak about solar cells in Calgary July 8. (Supplied photo)

Are You a Winner?

Congratulations to Alexandra Sheppard, whose name was drawn as part of folio's June 17 "Are You a Winner?" contest. She correctly identified the photo in question as being the pedway between Stadium car park and the Students' Union Building. For her correct answer, Sheppard has won a trusty U of A-issue stainless-steel coffee mug, as well as a U of A bookmark.

Up for grabs this week is CD gift pack from folkwaysAlive! complete with a copy of "Seeing the World of Sound: The Cover Art of Folkways Records." To win the prize pack, simply identify where the above pedway is situated and email your answer to folio@exr.ualberta.ca by noon on Friday, Aug. 12, and you will be entered into the draw.



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Headache from: TMJ, Migraine, Tensions, Sinusitis, Whiplash, etc....

Neurological: Anxiety & Panic Attacks, Insomnia, Stroke Paralysis, Facial Paralysis, Vertigo, MS, ADHD, etc....

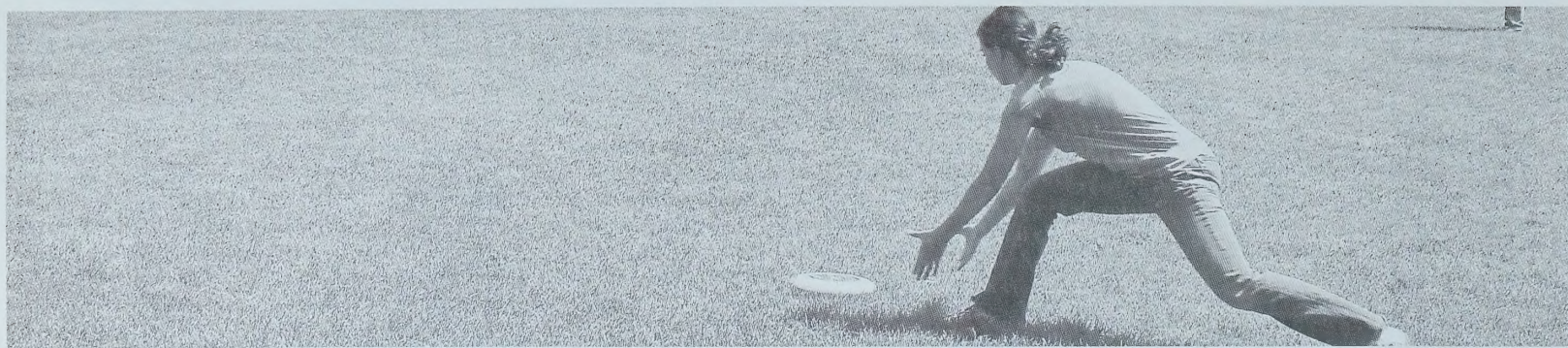
Reproduction: Male & Female Infertility, Low-energy, Menopause S, Prostatitis, Dysmenorrhea, Menoxenia, etc....

Soft-tissue: Stubborn injuries & strain, Backache, Sciatica, Arthritis, Bursitis, Tendonitis, Frozen Shoulder, etc....

Skin: Severe Eczema/Psoriasis; Alopecia, Hives, Shingles, etc....

Others: hemorrhoid, Diabetic-Gangrene, Raynaud's S, Rheumatism...

Etc....



Michael Davies-Yenn

Rethinking global university rankings

the open door

Indira Samarasekera
President and vice-chancellor

Op-ed first published in Inside Higher Ed July 12.

Put a group of university presidents together in one room and it won't take long for the conversation to turn to that pesky thorn that is now firmly entrenched and slowly festering in our sides: national and international university rankings. In the beginning, when these rankings were largely compiled by media outlets such as *U.S. News & World Report* or *Maclean's* magazine to attract consumers to special features focused on the pros and cons of campuses in the United States or Canada, the thorn barely touched us with a glancing scratch. Over time, however, the annual scratch became more and more insistent and harder to ignore. Now rankings are nasty and barbed thorns with the capacity to hobble—sometimes disastrously so—otherwise healthy, high-functioning institutions of higher learning. And they're here to stay.

Although the best-known rankings are beginning to devise methods to increase accuracy and objectivity, rankings remain flawed and misleading on many fronts. Too many measures continue to rely on the subjective judgment of faculty, employers or students who, in most cases, will have little, if any, knowledge of institutions or individual researchers outside the realm of their own direct experience. No measure has been found that accurately captures the value and impact of humanities and social science research, and trying to quantify the quality of undergraduate teaching or student experience through a simple faculty-student ratio simply cannot stand up to scrutiny. It must also be remembered that many of the rankings only take into account research that is recorded in English, leaving much of the tremendous work and talent in countries such as China and Russia unrecognized and undervalued.

From my perspective, rankings are also missing the mark by failing to shine a light on some of the most significant benefits that universities bring to local, national and global societies. The focus of most rankings is on academic research outputs—publications, citations and major awards—that stand in as proxies

for research quality and reach. While these outputs do a fairly good job of pinpointing the impact of a university's contributions to knowledge, especially in science, technology, engineering and health sciences, they provide little indication of what kind of impact these advancements have on factors that the global community generally agrees are markers of prosperous and secure societies with a high quality of life.

Let me give you an example of what I mean: governments and policymakers everywhere now consider universities as economic engines, as well as educational institutions. Public investments in research are increasingly directed toward research with the potential to translate into products, processes and policies—even whole new industries. This trend in research funding reveals a lot about the ways in which universities matter to governments, policymakers, regions and the public today, but the rankers aren't

“[Rankings should] adhere more closely to measures that reflect the priorities for which universities are being held accountable today by their various stakeholders.”

Indira Samarasekera

paying attention.

Consider Israel. According to data on NASDAQ's website, Israel has more companies listed on the NASDAQ stock exchange than any other country in the world except the U.S., and major companies such as Intel, Microsoft, IBM and Google have major research and development centres in Israel. Why? If you look at the data, you see a correlation between this entrepreneurial activity and the investments in and outputs from Israel's universities.

Israel is among a handful of nations with the highest public expenditure on educational institutions relative to gross domestic product, and it has the highest rate of research and develop-

ment investment relative to GDP in the world. It also has the highest percentage of engineers in the workforce and among the highest ratio of university degrees per capita. Many of the companies listed on NASDAQ were started by graduates of Israel's universities: Technion, Tel Aviv University, Weizmann Institute and Hebrew University of Jerusalem, to mention a few. Do international university rankings capture these economic impacts from research and postsecondary education in Israel? The answer is no. In spite of their tremendous impact and output, Israel's universities are ranked somewhere in the 100 to 200 range.

Germany's universities also tend to be undervalued in international rankings, even though Germany has had the strongest exports-led economic growth during the recession. By contrast, Britain's productivity, growth and competitiveness lag far behind Germany, and still, British universities generally outrank Germany's. According to OECD statistics, the proportion of higher education research and development funded by business in Germany is over twice that of Britain, which suggests the strong link between Germany's globally competitive business sector and universities.

My point here is not that universities should be ranked according to economic impact, per se. Instead it is to suggest that, if rankings are here to stay, then they should, at least in part, adhere more closely to measures that reflect the priorities for which universities are being held accountable today by their various stakeholders. Otherwise the rankings will continue to miss the mark and reinforce tired reputations and old hierarchies. ■

Verna Yiu named interim dean of medicine

Folio staff

Verna Yiu has been appointed interim Dean of the Faculty of Medicine and Dentistry for the period of June 17, 2011 to June 30, 2013, or until such time as a new dean is appointed, Provost Carl Amrhein announced earlier in this month.

Yiu is a professor in the Department of Pediatrics and past divisional director of pediatric nephrology. She has also served as vice-dean in the Faculty of Medicine and Dentistry since 2008.

As a graduate of the University of Alberta, Yiu received an MD with distinction and completed the pediatric residency program, which was followed by a fellowship in pediatric nephrology at Harvard University's Children's Hospital. She returned to U of A and became the medical director for the Stollery Children's Hospital, later taking on the role of divisional director for pediatric nephrology in 2000. During the same year, Yiu became the assistant dean for student affairs in the faculty, where she developed many new programs, including the first humanism program for medical students in Canada. She was appointed acting vice-dean of the faculty in 2008 and then vice-dean of faculty affairs in 2009.

“With Verna's outstanding record of administrative and academic achievements, I am confident that the faculty and university community will

experience a smooth transition over the coming months,” said Amrhein.

“I am committed to the success of this faculty and feel a deep sense of obligation and honour to serve its students,” said Yiu in her letter of introduction to the current students. “The success of our faculty is contingent upon the participation of its learners. My goal is to keep the pathways of communication open between us.”

Yiu has been recognized for excellence in teaching and clinical care and maintains her clinical activities with pediatric nephrology patients in tandem with her administrative role. In addition, she developed the annual “Kidney Kamp” for pediatric kidney patients, chairs the Royal College of Physicians and Surgeons of Canada's Specialty Committee of Nephrology and is a member of the advisory board for the Gold Humanism Honours Society. ■

“The success of our faculty is contingent upon the participation of its learners. My goal is to keep the pathways of communication open between us.”

Verna Yiu



Verna Yiu

Government of Canada invests in U of A discovery

Folio Staff

The Natural Sciences and Engineering Research Council of Canada has awarded \$19.6 million to 125 University of Alberta projects, which comprise the 2011 competition results for NSERC's Discovery Grants and Discovery Accelerator Supplements Program.

Among the U of A grantees is Michael Caldwell, chair in the Department of Biological Sciences and a paleontology researcher. He is receiving both a five-year, \$50,000 Discovery Grant and a Discovery Accelerator Supplement of \$120,000 over three years. Caldwell's ongoing and much-published research is focused on the evolution of snakes and lizards.

Caldwell says NSERC's core funding is essential to his work. “If you're going to pay graduate students, and fund and monitor their research plus be able to afford your own independent research, you've

got to have a Discovery Grant.”

The Discovery Grants Program supports ongoing programs of research in every scientific and engineering discipline. Of the U of A recipients of core funding NSERC Discovery Grants, 12 have been identified for a Discovery Accelerator Supplement Program grant. Accelerator awards are given to top-ranked researchers judged by their peers to show strong potential for becoming international leaders. The projects NSERC is funding range in length from one to five years. This funding was announced June 17.

Caldwell says NSERC's accelerator funds enable researchers to go beyond the scientific goals stated in funding applications. He adds eureka moments sometimes happen when people can chase down complete surprises in their research results. “The accelerator grant is like an unconstrained handshake to go out and follow new and unexpected results.”

The research council also an-

nounced scholarships and fellowships awards, including the Alexander Graham Bell Canada Graduate Scholarships and NSERC Postgraduate Scholarships and Postdoctoral Fellowships. Thus far, NSERC has announced that U of A students will be the recipients of 19 Alexander Graham Bell Canada Graduate Scholarships for 2011–12 worth \$35,000 each per year. At the doctoral level, U of A students will receive 27 NSERC postgraduate scholarships, valued at \$21,000 each per year.

NSERC is a federal agency that helps make Canada a country of discoverers and innovators for all Canadians. The agency supports some 30,000 post-secondary students and postdoctoral fellows in their advanced studies. It promotes discovery by funding more than 12,000 professors every year and fosters innovation by encouraging more than 1,500 Canadian companies to participate and invest in post-secondary research projects. ■

AASUA ratifies two-year contract

Folio staff

The University of Alberta's Academic Staff Association voted overwhelmingly in favour of accepting the tentative compensation agreement struck between university and association negotiating teams June 17.

Of the 1,430 members who submitted a vote, 90 per cent voted in favour of the two-year compensation agree-

ment for academic staff that provides for across-the-board increases to salary scales of 1.75 per cent and two per cent as well as increased value of merit increments to be provided July 1, 2011 and July 1, 2012.

Other terms of the agreement include increased funding for academic benefits and pensions.

To view the joint recommendation, go to: www.ualberta.ca/~public/as/uofa/pdf/Agreement.PDF. ■

Grant helps U of A create international reclamation graduate school

Michel Proulx

The Land Reclamation International Graduate School, which will begin accepting students within a year, is the first entity at the U of A to receive funding from Natural Sciences and Engineering Research Council of Canada's prestigious Collaborative Research and Training Experience Program.

The graduate school received \$1.65 million in funding and will eventually have about three dozen MSc and PhD students and post-doctoral fellows who will examine the science, as well as the socio-economic and regulatory issues, surrounding land reclamation.

"Land reclamation is not a solitary science," said Anne Naeth, a reclamation and restoration ecologist with the Department of Renewable Resources in the Faculty of Agricultural, Life and Environmental Sciences, who secured the funding and will lead the school. "You really have to work as a team. Land reclamation is so

tied to economics, culture, politics and regulatory issues that if you don't understand those, you won't be a good land reclamationist." She said the multidisciplinary approach of the school is what differentiates it from other similar schools and programs around the world.

Faculty members and students will work closely with industry, specifically with oilsands companies, and with government regulators, to ensure the program focuses on current issues in the field.

"Industry and government are a big part of our plan," said Naeth. "These students are going to be very proficient in understanding the whole continuum of the science, its application in industrial settings and the regulatory context that also comes into play."

The school will host Canadian and international students who, according to Naeth, share some similarities in their approaches to land reclamation, as well as some interesting differences.

She explained that North Americans tend to place an emphasis on returning native species

to disturbed lands, while Europeans and Asians are more concerned with ensuring a functional landscape.

"They're not as concerned about the nuances of species," Naeth explains.

The idea to create the school evolved from workshops Naeth conducted and presentations she made to colleagues and graduate students in Germany, Austria and Switzerland in the past three years. She and her European colleagues, mostly from Germany, began discussing how they could formalize their relationship and continue to learn from each other.

With the creation in December 2009 of the Helmholtz-Alberta Initiative, a \$25 million initiative over five years between the University of Alberta and the Helmholtz Association of German Research Centres, which focuses on driving technological innovations towards cleaner energy production, the relationship expanded and became more formal.

The initiative, which is aligned closely with the school, identified land reclamation as one

of six themes it focuses on.

The school will develop new courses, make minor adjustments to others and use video conferencing extensively to fulfil all the requirements of an international graduate school.

It will also, among other things, develop a speaker series in which land reclamation experts from around the world will make presentations.

NSERC's CREATE program, which supports the development of innovative training programs that encourage collaborative and integrative approaches, address significant scientific challenges associated with Canada's research priorities and facilitates the transition of new researchers from trainees to productive employees in the Canadian workforce. ■



Anne Naeth

Joint U of A-India partnership seeks to alleviate poverty in rural India

Aaron Yeo and Michel Proulx

An ambitious \$4.9-million project, managed in partnership by the Faculty of Agricultural, Life & Environmental Sciences and India's MS Swaminathan Research Foundation is aiming to alleviate poverty and malnutrition in three rural communities in India.

Nat Kav, professor in the Department of Agricultural, Food and Nutritional Science and co-principal investigator of the project, says that over the past few decades, farmers in the once diverse agricultural areas have grown primarily cash crops rather than the more traditional and nutritious foods they used to cultivate.

"Many of the people are now deficient in several nutrients because of the lack of diversity in what they eat," said Kav, who added that iron deficiency and anemia are prevalent in the regions.

Cash crops in India, such as rice and cassava, have been valued over more traditional millet and yams, as well as many garden vegetables. However, while it is profitable in the short-run to grow the

cash crops, it has had a detrimental effect on people's health and the land.

"With cassava, over time, these crops start to mine the soils," explained Brent Swallow, professor and co-principal investigator in the Department of Resource Economics and Environmental Sociology. "The crop degrades the soils, and the plants develop pest problems because the farmers have been growing just one variety, and it's easy for pests to come up and attack the plants."

To address this, the research team—composed of Kav, Swallow, ALES food economist Ellen Goddard and soils scientist Miles Dyck, as well as three ALES graduate students and their counterparts from the MS Swaminathan Foundation—will introduce intercropping, the practice of planting multiple crops in the same area. Plants that require different nutrients or different sunlight conditions can share farmland, increase diversity and be more resilient against pests.

While these practices will be used on farms, not everyone in the community owns land. The team will look at integrating the non-land owners into the food production and processing chain,

with a focus on empowering Indian women.

"The MS Swaminathan Research Foundation and others have found that, if we can engage women, then the chances of things like this flourishing are much higher," Kav explained.

Currently, the team is developing surveys and instruments to collect baseline data, which will be used for comparison until mid-2014, when the project is slated to end. Four thousand households will be studied at first, which will then be narrowed down for the on-farm portion of the project.

Professor MS Swaminathan is perhaps best known as the father of the Indian green revolution, which transformed his country by making it self-sufficient in food. He was the first-ever recipient of the World Food Prize, the most prestigious international prize given in food and agriculture. Swaminathan was awarded an honorary degree from the U of A in October 2010.

The project is co-funded by the International Development Research Council and the Canadian International Development Agency. ■



To address the proliferation of cash crops that have robbed India's agriculture of diversity, the research team will introduce intercropping, the practice of planting multiple crops in the same area. (Supplied photo)

Award-winning instructor says teaching is a journey

Michael Brown

For Anne Boerger, teaching, like life, isn't about the destination, but rather the journey.

The sessional assistant professor and president of Campus Saint-Jean's Teaching and Learning Committee likens her role of instructor to a traveler who has to be well prepared with the necessary knowledge and tools to make the most out of the day.

"Both the teacher and the traveler need to remain open to serendipitous experiences beyond their initial plans. They need to seize the opportunities as they present themselves," said Boerger. "Their ability to adapt constantly to a changing environment is key to their success, whether on the road or in the classroom."

"Both teaching and taking a journey are an adventure to be enjoyed."

This philosophy isn't just sound in principle, it seems to transfer well to

teaching & learning, learning & teaching

the classroom, as Boerger is a recipient of the 2011 William Hardy Alexander Award in Undergraduate Teaching.

Boerger began her journey at Campus Saint-Jean in 2003. She remembers her first assignment, teaching political science rather than history, which was the subject of her doctorate.

"I had to understand the North American teaching culture, which

was so different from my own European educational background. I had to grasp the implications of teaching in a minority setting to students, most of whom had French only as a second language," she says.

Undeterred by a new teaching situation, Boerger says she developed five core principles of good teaching, based on who she is as an individual and on the particulars of the historical discipline she teaches. She says that good teaching is about being commit-

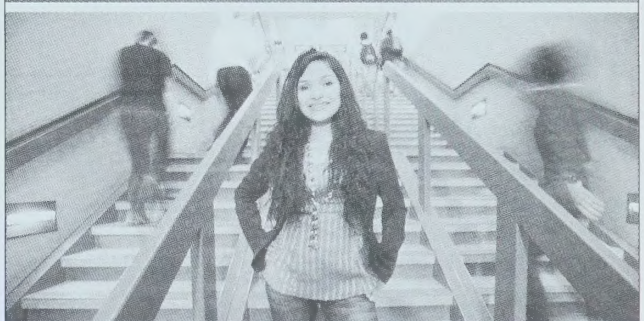
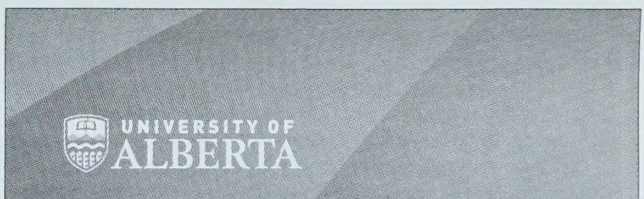
ted and about being on top of her game, helping students to develop transferable skills and strong habits of mind, opening the student's mind to the world and its diversity, creating inclusive learning opportunities and making the material relevant and interesting.

"Studying the past helps us to better understand ourselves and our place in the world here and now. It gives us perspective on our own human experience, and encourages us to see the bigger picture," said Boerger, adding this benefit is not always so clear to the students who tend to associate learning history with memorizing lists of facts. "It is vital to make what I teach as relevant as possible to my students in order to show them how history relates to their lives and to the world in which they live."

She adds, "If I have made progress in my journey as a teacher, it is still and always will be an ongoing journey. It is a path of continuing growth and development on which I intend to keep travelling, since it gives meaning and focus to my professional life." ■



Anne Boerger



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Student-created chickpea chips take bite out of competition

Bev Betkowski

Hungry for success on a class project, a group of University of Alberta students has taken their recipe for chickpea chips and turned it into a winning snack that crunched its way to first place in a national competition July 12.

Chickitos, a gluten-free chip, took a bite out of provincial competitors this spring and won against two other Canadian teams at Pulse Canada's national Mission ImpULSEible competition in Vancouver.

What started out as a fourth-year food science project for students in the Department of Agricultural, Food and Nutritional Science soon turned into an all-consuming kitchen experiment and a quest for chip perfection.

"We just wanted to get a good grade, and it went from there," said Eden Berhe, who toiled in the lab kitchen for more than 150 hours with her fellow classmates Kate Alexander, Marshall Bell and Paula Duenas, before they hit on a tasty

formulation.

When the group found out about a contest being hosted by the Alberta Pulse Growers, it decided to develop a gluten-free snack food worthy of a competition.

"We thought, 'why not do something we can enter into a contest?'" said Alexander, who just graduated with a degree in nutrition and food science.

From then on, it was a month's worth of intense trial and error of about 20 recipes using chickpea flour, potato starch, canola oil and secret spices, with classmates giving taste and texture reviews. Early crash-and-burn efforts had the team ditch its original idea of developing a cracker and turn to creating a chip instead. "The cracker got horrible reviews, so we changed our formula completely. They fell apart too easily and had no crunch, so we did a lot of baking and testing," said Alexander.

"Most people don't like the taste of chickpeas. The challenge we took up was to make chickpeas taste good," added Berhe, who just earned her

degree in food science and technology.

The group tweaked its chip recipe after Berhe's mom tasted it and was stirred by memories of food from her native Eritrea. The formula worked much better and after being spiced up, went to provincial competition last spring, where the smoky-flavored Chickitos beat out other student-created goodies like noodles, gnocchi, cookies, perogies and power bars.

Besides being gluten-free, Chickitos are low in sodium and a source of fibre; they're also higher in protein and lower in calories than the average bag of potato chips.

The Chickitos team knew it had a good product, but was still stunned to win at nationals. "I'm pretty sure our mouths all dropped to the ground, and we were happy and surprised. It was awesome," Alexander said. "It's amazing to know that we've done something right."

With its \$2,500 prize, the team now plans to explore its options for marketing Chickitos. "The sky's the limit—this competition and conference opened our eyes to how big the pulse industry is and



Kate Alexander and Eden Berhe won a national chip competition July 12.

how I, for sure, really want to be in this industry, reinvesting in Chickitos—whether we sell it or make a company out of it." ■

Putting the 'yes' in TEC Edmonton

Brian Murphy

Gigi Ho likes many things about her job at the business incubator TEC Edmonton, and high on that list is not having to use one particular word. "We never say 'no,'" said Ho. "We have lots of services for tech start-up companies, but if we can't help, we find someone who can."

It's that kind of enthusiasm that Ho says drew her to TEC Edmonton, the not-for-profit venture between the University of Alberta and the Edmonton Economic Development Corporation office.

Ho brings an interesting mix of education

staff spotlight

to her job as a business development associate. Her undergraduate degree in anthropology and biology was capped off with a master's degree in biomedical technology. "My master's is one half science and one half business, which is a huge asset for understanding new technologies and finding the right way to put those people in business."

On the business side, Ho takes entrepreneurs through the steps of establishing intellectual property rights to the technology, all the way to finding its market potential and bringing the right investors onboard.

"One of my favourite projects comes from U of A medical research into a fast and accurate test for colon cancer," said Ho. She explains the technology, based on a simple urine test, is now in clinical trials. In the meantime, the newly formed company, Metabolomic Technologies, Inc., which Ho helped set up, is looking for the best way to sell its product. "They're looking at what marketing platform to use for the test," said Ho. "Do they sell it to medical testing labs that will run the test or do they put it in drug stores where people buy it and do the test themselves?"

Ho says it's easy to get caught up in the enthusiasm at TEC Edmonton. "Technology entrepreneurs bring vision and energy with their projects and that makes TEC Edmonton a very positive place to work." ■

Gigi Ho, a business development associate with TEC Edmonton, helps technology entrepreneurs bring their ideas to market. (Supplied photo)



Study shows earlier springs hinder blooms

Bev Betkowski

Spring is hailed as the season of rebirth, but if it comes too early, it can threaten the plants it is meant to welcome.

A University of Alberta study shows that climate change over the past 70 years appears to have pushed some of the province's native wildflowers and trees into earlier blooming times, making them more vulnerable to damaging frosts, and ultimately, threatening reproduction.

U of A PhD candidate Elisabeth Beaubien and her supervisor, professor Andreas Hamann, of the Department of Renewable Resources, studied the life cycle of central Alberta spring blooms, spanning 1936 to 2006, evaluating climate trends and the corresponding changes in bloom times for seven plant species.

Using thermal time models, the researchers found that the bloom dates for early spring species such as prairie crocus flowers and trembling aspen trees had advanced by two weeks over the stretch of seven decades, with later-blooming species such as saskatoon and chokecherry bushes being pushed ahead by up to six days. The average winter monthly temperature increased considerably over 70 years, with the greatest change noted in February, which warmed by 5.3 degrees Celsius.

"Increasing exposure to frost means a gradual loss of ability for a plant species to survive where they are growing," Beaubien said. "Loss of flowers means no seeds are produced, and with climate warming and shifts in vegetation zones, we will need abundant seed production so that plants can reproduce, and with help from wind-borne seeds, can find more suitable habitats."

The study, funded by grants from NSERC and Alberta Ingenuity, appears in

the July issue of *Bioscience*.

In gathering their data, Beaubien and Hamann built on a network of information about phenology—the study of the timing of life cycle events—that was started in 1936 by the federal agriculture department and has since been supplemented by the collaborative efforts of university biologists, government researchers and more than 650 volunteers from the general public. ■



Elisabeth Beaubien has found that earlier springs have pushed some of the province's wildflowers into earlier blooming times, making them vulnerable.

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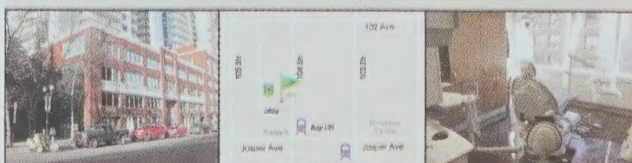
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Old wastewater plant put out to pasture

Bev Betkowski

A used-up sewage plant is not an inspiring class project by any means, but a group of University of Alberta students has come up with a way to reclaim just such a site in Lac La Biche.

As their capstone project for a fourth-year land reclamation course in the Department of Renewable Resources, a team of six undergraduates researched how to put out to pasture an aging wastewater plant in the northern Alberta town.

Lac La Biche's wastewater plant and its two lagoons were built in 1983 to

serve the community, but over the years, the small lake that takes the effluent from the plant has become choked with algae, affecting the quality of the Lac La Biche watershed. A new plant is currently being built by the county, but the students, after reading about the issue in a community newspaper, wanted to tackle the dilemma of what to do with the old facility.

"We wanted to do something realistic for the area, and it seemed most feasible to reclaim it to a cattle grazing leasehold, because that is what is in demand in the area," said Ashley Reinhardt, team leader on the project and a newly minted graduate in environmental

and conservation sciences. "The site is beside agricultural areas already."

Together, the students tackled every aspect of land reclamation, viewing past reports about the plant, studying the site characteristics and coming up with a budget of \$900,000, based on the estimated costs of labour and material.

Though the project is a theoretical exercise for the students, every step of the process is researched to the last detail and is ready to apply, said professor Anne Naeth.

"These projects allow the students to hone their skills as reclamation practitioners. It is far more exciting and meaningful if they can use the real sites and real problems."

The students' five-year plan calls for the plant's two aeration lagoons to be removed, along with 750 metres of pipeline, an access road and a parking lot. Berms surrounding the lagoons would be re-contoured, and the surrounding soil loosened and fertilized. The site would be planted with seven types of prairie grasses, which are perfect for grazing.

"It is realistic and feasible," said Reinhardt. "It's tough to say what the community would think about it, but that area, we feel, would be accepting of it. We kept the cost low and it is reclaimed to something that locals can use." ■



Land reclamation students find that the best way to reclaim an obsolete wastewater treatment plant is to turn it into a cow pasture. (Supplied photo)

Study finds threat level for caribou in oilsands country reduced

Brian Murphy

A University of Alberta researcher has co-written an extensive study of the caribou population in the Fort McMurray oilsands region that show the animal's survival isn't as threatened as was once thought. The study recommends efforts to manage human activity around resource development rather than killing wolves, the caribou's main predator, as the first step in restoring the population of the herds in a large area south of Fort McMurray.

U of A math and statistical sciences researcher Subhash Lele was part of the team that used specially trained dogs to find scat from caribou, moose and wolves

in the study area. "Laboratory analysis of animal scats gave the researchers a window into the genetics, health and diet," said Lele. The new diet information also found that wolves prefer to eat deer over caribou by a wide margin.

The researchers used resource selection statistics along with measurements of the animals' psychological stress levels, derived from their scat samples, to show the effects of local resource development. The researchers found that it is not merely the presence of roads and cut lines, but the intensity of human activity, such as noise levels, that has the biggest affect on the animals.

Previous estimates of the caribou population in the area were largely based on professional opinion and

estimates. Those early surveys put the caribou population at between 90 and 150.

This new study paints a different picture for the number of caribou in the McMurray oilsands region. Genetic analysis of the scat, combined with the statistical capture-recapture methods, now puts the current number of caribou between of 209 and 389. The researchers say the population numbers for all animals in the study—caribou, moose and wolves—remained steady during the four-year study.

"The corroborative evidence suggests that wildlife management officials should first try to control the human activity in the area before focusing on a wolf kill as the solution," said Lele. ■



Marvin the scat-tracking dog and his handler search for caribou, moose and wolf droppings in the Alberta oilsands country. (Supplied photo)

Eggs may be the new apples?

Michel Proulx

One of nature's most perfect foods may be even better for us than previously thought.

While eggs are well known to be an excellent source of proteins, lipids, vitamins and minerals, researchers at the University of Alberta recently discovered they also contain antioxidant properties, which helps in the prevention of cardiovascular disease and cancer.

Jianping Wu, Andreas Schiebe, graduate student Chamila Nimalaratne and research associate Daise Lopes-Lutz examined egg yolks produced by hens fed typical diets of either primarily wheat or corn. They found the yolks contained two amino acids, tryptophan and tyrosine, which have high antioxidant properties.

After analyzing the properties, the researchers determined that two egg yolks in their raw state have almost twice as many antioxidant properties as an apple and about the same as half a serving (25 grams) of cranberries.

However, when the eggs were fried

or boiled, antioxidant properties were reduced by about half, and a little more than half if the eggs were cooked in a microwave.

"It's a big reduction but it still leaves eggs equal to apples in their antioxidant value," said Wu.

The discovery of these two amino acids, while important, may only signify the beginning of finding antioxidant properties in egg yolks, says Wu.

"Ultimately, we're trying to map antioxidants in egg yolks so we have to look at all of the properties in the yolks that could contain antioxidants, as well as how the eggs are ingested," said Wu, adding that he and his team will examine the other type of antioxidant already known to be in eggs, carotenoids, the yellow pigment in egg yolk, as well as peptides.

In previous research, Wu found that egg proteins were converted by enzymes in the stomach and small intestine to produce peptides that act the same way as ACE inhibitors, which are prescription drugs that are used to lower high blood pressure.

That finding defied common wisdom and contradicted the public per-



Jianping Wu and his team have found that eggs help fight heart diseases and cancer. (Supplied photo)

ception that eggs increased high blood pressure because of their high cholesterol content. Additional research by Wu suggests the peptides can be formulated to help prevent and treat hypertension.

Wu is convinced the peptides also have some antioxidant properties, which leads him to suggest that when he completes the next step in his research, the result will likely be that eggs have even more antioxidant properties. ■

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Lab-on-a-chip pioneer wins Kaplan award

Michael Brown

Lab-on-a-chip technology was virtually unheard of at the end of the 1980s; in fact, the yet-to-be invented technology didn't even have a name.

That changed in the early 1990s when a research team, led by University of Alberta chemistry professor Jed Harrison, published a series of papers coining the phrase "lab-on-a-chip" and "microfluidics."

Harrison's work looks at a form of microfluidics whereby silicon-chip manufacturing technology is applied to the miniaturization of chemical and biochemical analysis systems, known as biosensors—he looks particularly at the separation of ions by electric charge in this process. This research was pioneered by Harrison and his team in an industry where lab-on-a-chip

uses are limited only by the imagination and include immunological tests for hormones and drug abuse, DNA diagnostics, tests for soil and water contamination and detecting biological warfare agents on the battlefield.

Both portable and inexpensive, this lab-on-a-chip technology needs only a very small amount of test material—about one billionth of a millilitre. These devices can detect extremely small concentrations, for example, the equivalent of one Tylenol tablet dissolved in 12 Olympic-sized swimming pools.

Harrison is a leader in advancement of this miniaturization of chemical analysis, and his work resulted in his being the recipient of the 2011 J. Gordin Kaplan Award—the university's most prestigious research award. He says the U of A has provided him with the environment to succeed.



Jed Harrison

"I have been able to flourish and accomplish the things I need," he said, adding the university microfabrication facility, now known as the Nano Fab, has allowed many university researchers to prosper. "The equipment in the Nano Fab has allowed us to be state-of-the-art."

For the six years after Harrison joined the U of A's analytical chemistry division in 1984, his team worked on biosensors, a field which had stalled throughout the '80s. The problem that persisted, says Harrison, was taking a measurement of one chemical in the presence of many. "When you think about a biosensor, what you are asking it to do is measure one chemical in a sample that contains many hundreds or thousands of chemicals, and that is a pretty challenging thing to do."

Harrison says the way chemists have previously gone about solving this problem was by way of the laborious task of separating the chemicals first and then taking individual measurements.

"I saw that the engineering commu-

Nominations being accepted for 2012 Kaplan Awards

The 2012 J Gordin Kaplan Award for Excellence in Research is now open for nominations. The award recognizes outstanding work in two distinct fields of research: the general area of humanities, social sciences, law, education and fine arts, and the sciences or engineering.

One awardee from each field will be selected by a jury composed of members of the University Research Grants Review Committee, the vice-president (research), the associate vice-presidents (research), and representatives from the off-campus community.

The three main criteria used for the jury's assessment of the nominees

are: quality of research; impact of research on the advancement of the field, both nationally and internationally; and distinction which the research has brought to the University of Alberta.

Each award consists of a \$5,000 prize and an engraved plaque of recognition. Awardees automatically become members of the Academy of Kaplan Laureates.

The deadline for receipt of nominations is Nov. 4. Please ensure that dossiers are received by 4:30 p.m. on that date in the Office of the Vice-President (Research), 1-20 University Hall, attention: Annette Kujda.

U of A's sphere of influence on display in magazine's top 50

Donna Richardson and Michael Brown

If Louis Hugo Francescutti had his way, he would have us approach things differently when tackling tough public health issues. And, as he was recently named one of the province's top 50 most influential people by *Alberta Venture* magazine, that just might happen.

Francescutti, a professor in the School of Public Health at the University of Alberta, was joined by water ecology professor David Schindler and Molecular ecology post-doctoral fellow Catherine Cullingham as the U of A researchers making the list.

"The old way of doing things is going to give you exactly what you've already got," said Francescutti. "That's not good enough for Canadians."

Francescutti says there are ongoing concerns about the sustainability of the Canadian health-care system. "People are starting to realize that continuing to pour billions of dollars into the health-care system isn't really making that many people healthy."

"We can't abandon people who are unwell, but if we are to make the system sustainable for our kids and improve our economy, then we have to think very differently."

When asked how he'll leverage being recognized as one of Alberta's most influential citizens to advance public health, Francescutti says, "That's easy. I'll use the opportunity to start discussions."

There will likely be many such opportunities for discussion. In addition to serving as professor in the School of Public Health and president of the Royal College, he was recently appointed to a three-year term as honorary colonel of a Canadian military regiment, First Field Ambulance Edmonton.

Francescutti also sits on numerous boards, including the University of Alberta's Board of Governors. "I see my role as encouraging leading-edge thinking and ensuring that our university is in tune with the needs of society."

He thinks the U of A is poised to play a significant and positive role in many areas, including public health. "If we put together our most talented people and partner with our colleagues at other Alberta universities, we could successfully tackle one problem after another," explains Francescutti. He suggests that this should be an iterative approach, where interdisciplinary teams come together to work on an issue and then disband, so that new teams are formed to work on another issue.

"Society is looking for relevance that is immediate," says Francescutti. "We need to be responsible to taxpayers and give them solutions to problems that they face on a daily basis."

A visionary at heart, Francescutti has a dream. "It's not too bold to say, 'Alberta wants to be the healthiest place in the world to work, play and travel.'"

After that, citizens can start expanding the province's success internationally. "As a university, we have a responsibility to make sure that we take care of others."

Alberta Venture named Schindler to the list thanks to his work advocating for the health of the Athabasca River. The former Rhodes Scholar, who has been named to both the Order of Canada and the Alberta Order of Excellence, began studying

the Athabasca River in 1989 when he joined the U of A as the Killam Memorial Professor of Ecology. His conclusions—finding that Alberta's oil-sands industry is releasing more pollutants into the Athabasca River, its tributaries and its watershed than previously estimated—led to the formation of a provincial review panel.

"We have to establish a robust long-term monitoring program on the Athabasca," said Schindler with the release of the study in 2010.

"The effects on human and environmental health must be accurate and made public."

Cullingham's inclusion in *Alberta Venture*'s top 50 most influential stemmed from her research that determined that the mountain pine beetle has invaded jack pine forests in Alberta, opening up the possibility for an infestation stretching east across the Prairies all the way to the Atlantic.

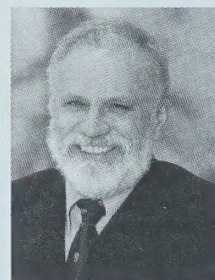
"Tracking the pine beetles' progression and telling jack pine from the hybrid species took a lot of work," said Cullingham, who raised the alarm with Alberta Sustainable Resource Development and the Canadian Forest Service, which will use the study to manage the infestation. "It was tricky, but our research team used molecular markers to conclusively show that the latest pine species to be attacked is indeed jack pine."

Michael Sikorsky, who completed his first year as the entrepreneur in residence of the U of A's Faculty of Engineering, also made the list. This CEO and co-founder of Robots and Pencils is making his mark in the sector of smart phone applications or "apps." In 2010, his company created the fourth-highest-grossing app in North America, Minecraft World. In 2010, his company received the award for innovation and leadership from Digital Alberta.

Alumnus Todd Hirsch, who received a bachelor of arts in economics from the U of A, made the list as one of the province's most respected economists.

Andrew Leach, professor in the Alberta School of Business, was listed in *Alberta Venture*'s "next 10" section, as a "future leader to watch," for his reputation as both a skilled economist and a voice of uncommon reason through his regular contributions to *Alberta Oil* and the *Globe and Mail*'s "Economy Lab" as well as frequent updates on his blog, which focuses on energy, climate and the oilsands.

Alumnus and former U of A CJSR radio station music director Aaron Levine joined Leach on the next 10 list, thanks to his influence on bringing the spotlight to underground Canadian music via his label, Cantor Records. ■



Louis Francescutti



Lianne McTavish (Photo supplied)

Professor gets ripped for research

Michael Davies-Venn

At 43, and having published several books and articles on the history of early modern visual culture, medicine and the body, University of Alberta art and design researcher Lianne McTavish had what she describes as a "crazy" research idea relating to pop culture.

The thought, as it turned out, culminated with McTavish, a self-described feminist, taking to a stage not often tread by university professors. The idea was to combine her love of weight training with academic work to become what she called "Feminist Figure Girl," a character who would participate in a figure contest, a type of bodybuilding competition that emphasizes muscle tone over size.

"I pondered it for a few months before telling anyone because I thought it was a crazy idea," said McTavish. "Training for a bodybuilding contest is an extreme thing to do. I'm 43, and I thought that my body might refuse to co-operate."

The idea that she might fail ultimately challenged McTavish to enter the competition. For six months, she adhered to a strict diet of chicken, bison, sweet potatoes, egg whites, protein powder, oatmeal and Brussels sprouts, and trained two hours, twice daily.

Heading into the competition, McTavish's lean body mass was in the top one percentile for women her age and she was stronger than the average 20-year-old man. However, figure girls are expected to do more than develop their muscles; they must also present a particular image of beauty, the type of which repulsed McTavish the first time she witnessed a figure competition.

Despite what she says are the incongruities between her experiment and her feminist ideals, McTavish decided to conform to the rules of the competition and took posing lessons, added fingernail extensions and paid \$700 for

a custom-fit bikini. "I did not do this to please the judges, but to have the full figure-girl experience, which authorized me to write about it," she says. She adds that it's difficult to see figure contests as a form of feminist expression, but she believes they are. "The feminist aspect was the female sociability that went with both the preparation and performance, along with the experience of suffering and challenge that brings women together."

It's that connection that made McTavish decide to become a certified personal trainer and volunteer with abused women in shelters who can't afford trainers but want to focus on strengthening their bodies and minds. McTavish is also writing a book that may contribute to changing theories about how women both engage with and resist contemporary norms of beauty.

"Feminist theories tend to address the objectification of the female body but it's empowering to be looked at," she said. "For me, it was not always empowering to be looked at but it was more rewarding than I had thought it would be. My ongoing research will focus on different kinds of looking, and deal with the complexities of being looked at." ■

One of Alberta's most important literary voices dies

Michael Brown

The University of Alberta community is mourning the sudden and tragic death of an alumnus whose dedication to telling stories of Prairie life was matched only by his enthusiasm for life and his generosity. Robert Kroetsch, author, poet, teacher and one of the U of A's greatest success stories, died June 21 in a car accident. He was 83.

Born in 1927 in the central Alberta village of Heisler, Kroetsch, a voracious reader, once said that, of all the books he had read as a youth, he never found one that spoke to his life and experiences. It was then that the young Alberta farm kid dedicated his career to telling the story of life on the Prairie.

"That's a terrible thing for a child, to be reading and reading and never encounter a wheat field or central Alberta," Kroetsch said in a video created to recognize his 2003 University of Alberta Distinguished Alumni Award. "So there was the script and I wasn't in the script. One of the things that made me speak was to say, 'I was going to put my story into that script somehow.'"

Kroetsch left the farm to attend the U of A, where he graduated with a bachelor of arts degree in 1948. He put down his pen and went

to work as laborer uploading and unloading riverboat barges in Canada's North, an experience that eventually found its way into his first novel, *But We Are Exiles* (1965). After university, Kroetsch took a number of different jobs—including a time as a civilian information and education specialist for the United States Air Force in Goose Bay, Labrador.

In 1954, he decided to attend graduate school at Middlebury College, Vermont, and began his academic career at Binghamton University in New York. While living in the United States, he began to write and started putting Alberta's story into words.

Eventually he returned to Canada in the mid-1970s to teach at the University of Manitoba where he had a long and distinguished career. Upon retiring, he returned Alberta, where he continued to write.

Kroetsch is considered by many to be Alberta's most important writer of fiction, poetry and literary criticism. Kroetsch, whose work is characterized by humour, rich characterization and intellectual rigour, say critics, is considered the first author to successfully write realist fiction

about Canada's West—no other work signifies that arrival more than his novel *The Studhorse Man*. Set against the backdrop of a rough-and-ready Alberta emerging after the Second World War, this story is about the adventures a horse-man encounters in his quest to breed his rare blue stallion was the winner of the 1969 Governor General's Award for Fiction.

Through all of his writing and his teaching, he not only gave voice to Alberta's and Western Canada's story, but also gave his fellow writers, literary critics and students

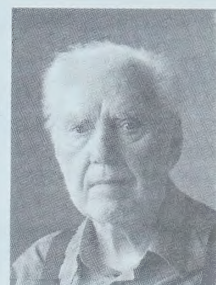
ways to think through and understand what it means to write and read contemporary

Canadian literature. His leadership and influence on the direction and growth of Canadian literary studies over the last several decades is widely recognized.

Among his numerous literary awards, Kroetsch was presented with a Lieutenant Governor of Alberta Distinguished Artist Award in April of this year and was honoured with the Writers Guild of Alberta Golden Pen Award for lifetime achievement at the 2011 Alberta Book Awards June 11. Kroetsch was given an honorary degree from the

"One of the things that made me speak was to say, 'I was going to put my story in the script somehow.'"

Robert Kroetsch



Robert Kroetsch

U of A in 1997 and was made an officer of the Order of Canada in 2004.

All told, Kroetsch's career saw him pen nine internationally acclaimed novels, 13 books of poetry and seven books of non-fiction, essays and exploration. Over the last decade, Kroetsch worked with U of A Press to publish three new books of poetry and reprint some of his older novels.

"Almost every western Canadian writer can tell you a story about how Robert Kroetsch could make you feel as if you were the only person in a room full of people. It was his gift to encourage aspiring writers while offering tremendous insight into the work of established writers—his colleagues and friends," said Linda Cameron, director of the U of A Press. "As Robert's publisher, his visits stood out and were a highlight of the day. He was always polite, generous in his response to our questions, and appreciative of our work. He was the kind of author/publisher's dream of working with."

"He lived life more fully than anyone we know. He will be missed."

Division of Neurosurgery celebrates first female graduate in 50-year history

Quinn Phillips

Jenny Souster faced a daunting reality when she started her residency in neurosurgery in the Faculty of Medicine & Dentistry. No woman in the program's 50-year history had made it through the seven-year program.

That didn't scare her, and now Souster's name goes down in history as the first woman to graduate from the neurosurgery residency program at the University of Alberta.

"I have four brothers, so I think I'm just used to men and surviving with men," joked Souster. "Someone had to be the first and I'm honoured that it was me."

"Female neurosurgeons are just superb," said Keith Aronyk, director of the Division of Neurosurgery in the Department of Surgery. "Technically they're excellent and we need more of them in Canada. This is a tremendous start and are we ever excited."

Souster credits her timing in entering the

program, saying that the current academic faculty were very supportive.

"The group of neurosurgeons working here have been wonderful and haven't made it difficult," said Souster.

"Our training program has gone from four teachers in the beginning 50 years ago to 13 now," said Aronyk. "There's a diverse group of neurosurgeons teaching and because of our funding scheme we're able to focus on our teaching a lot more."

Souster says most residents go through a period of wondering if they can make it. A few years in to her residency she felt burnt out and took some time off to re-evaluate her future.

"I realized I was just in love with neurosurgery and it's what I wanted to do," said Souster.

"I ended up coming back with a lot more energy and drive to finish the last few years. It's a long haul, and you just have to make sure you take care of yourself along the way."

Souster thinks that many women don't make it through the program because surgical sub-specialties are a tough lifestyle.

"You have to sacrifice a lot of time, because it's a hard residency with long hours," said Souster. "For a lot of women, we're at the age where we want to have families, so I think that might be one deterrent. The workload is very high; there are a lot of expectations."

Souster's education isn't quite done. She recently left for California to do a fellowship in pediatric neurosurgery at the Los Angeles Children's Hospital. She wants to come back to Canada to practice, and Aronyk is hopeful he can bring her back to the U of A so future students have a female role model.

"I have four brothers, so I think I'm used to men and surviving with men."

Jenny Souster



Jenny Souster is the first graduate of neurosurgery in the program's 50-year history.

Kule Institute grants aimed at advancing interdisciplinary research

Michael Davies-Venn

The Kule Institute for Advanced Study has announced the first recipients of its Research Cluster and Interdisciplinary Course Seminar grants. The awards, given to faculty and students from across campus, are the institute's first major undertaking since it established under a year ago.

The two new research programs at the institute will help develop the University of Alberta's interdisciplinary research agenda, according to the institute's founding director Jerry Varsava. He says the programs will help expand research on the institute's current research themes: stewardship of the planet; place, belonging and otherness, and culture, media and technology.

"With the Interdisciplinary Course Seminar grants, we are bringing together some of our top researchers, along with students from a variety of departments and faculties, to explore one or more of our three focus themes," Varsava said. "The courses

will be on areas not covered by the curriculum."

He says researchers within different disciplines often work together, but that the institute offers a structured environment that fosters interdisciplinary research, Varsava said. "What is particularly intriguing about KIAS is that it brings a kind of formal structure and a mandated focus to collaboration. That perhaps is a little unusual."

Researchers from different faculties will lead the course seminars, which will attract undergraduate and graduate students.

Each seminar will have up to 12 students who will receive course credits for participating, Varsava says. It is a great opportunity for both students and faculty.

"These are research-intensive seminars and they will be looking at is-

ues from a variety of interdisciplinary points of views and interacting with students from other departments and in some instances, different faculties. The intellectual experience will be of a different order. This is a very attractive opportunity for our students to

think beyond their chosen disciplines," said Varsava.

"The institute, as part of its mandate, engages in socially responsive and socially engaged research. Aside from the formal course credits they will get, students are also engaged in timely and topical

discussions of contemporary current importance," he said.

Varsava says the cluster grants are the institute's largest program and that they emphasize the importance of cross-discipline collaboration. He says the grants are a vehicle in delivering

"The institute is a classic illustration where a great research intensive university has seen the merit of not thinking about things along disciplinary lines."

Jerry Varsava

the university's mission on global citizenship, in that grant recipients will be focusing on issues of importance in Edmonton and around the world. "The institute is interested in helping Albertans understand important issues of the day, such as various profound environmental challenges," he said.

"At the same time, these same environmental matters are faced by many other jurisdictions. KIAS is interested in establishing itself as a major international institute with the research it supports offering ideas and insights of interest and currency to a broad international community."

Wayne DeFehr and Patricia Demers, professors in the Department of English and Film Studies; Natalie Kononenko, in the Department of Modern Languages and Cultural Studies; Scott Smallwood and Guillaume Tardif, in the Department of Music, and Maria Whiteman, from the Department of Art and Design, are the researchers who won the Interdisciplinary Course Seminar grants.

Recipient of the cluster grants are Isabel Altamirano-Jimenez, Depart-

ment of Political Science; Diane Conrad, Department of Secondary Education; Sean Gougias, Department of History and Classics; Gordon Gow in the Faculty of Extension; David Kahane, Department of Political Science and Sheena Wilson, Campus Saint-Jean.

Varsava says the institute will promote the output of the work of its grants recipients beyond the academy, by launching its Kule Dialogues Program within the coming year.

"We are called upon, often in institutional settings, to think along disciplinary lines. But the institute is a classic illustration where a great research intensive university has seen the merit of not thinking about things along disciplinary lines," he said. "The grants are a vehicle in delivering the university's mission on global citizenship and we emphasize the importance of dissemination. The Kule Dialogue Program, which is our dissemination program, will support disseminating the output of these grants in addition to any more formal scholarly dissemination."

news [shorts]

folio presents a sample of some of the research stories that recently appeared on ExpressNews, the U of A's online news source, and other campus news sources. To read more, go to www.expressnews.ualberta.ca.

Science magazine names U of A a top employer

The Scientist, a magazine of the life sciences, announced July 4 that the U of A is the eighth best institution of higher learning to work at, outside the United States, as part of the publication's ninth annual "Best Places to Work in Academia" survey.

"We are always proud to be recognized as one of the top university workplaces," said President Indira Samarasekera. "This acknowledgement speaks not only to our efforts to build a world-class research and teaching institute that attracts some of the top talent in the world, but also to the culture of collegiality and collaboration that our staff and faculty have worked very hard to create."

The U of A scored particularly high in areas of how the respondents felt about their peers, pay, management and policies, and tenure and promotion. As well, the magazine said a productive research environment and a fun, casual atmosphere is a commonly cited trait of the study's top institutions, as was collaboration.

Two alumnae called to the Order of Canada

Lorna Crozier and Jeanne Besner, two University of Alberta alumnae, have been named to the Order of Canada. Crozier will be inducted as an officer while Besner will be appointed a member at a ceremony to be held at a later date.

Besner, who received a bachelor of science (nursing) in 1977, a master's of health services administration in 1985 and a PhD in 1998, all from the U of A, is being recognized for her contributions to public health. She has held various positions throughout her career, including director of public health nursing and primary care development in the former Calgary Regional Health Authority. She has served as a board member of the Canadian Nurses' Association and president of the College & Association of Registered Nurses of Alberta. Besner, who recently retired from her position as director of Alberta Health Services' Health Systems and Workforce Research Unit, is currently the director of JFB Workforce Consulting. She continues to serve as an adjunct professor in the U of A's Faculty of Nursing.

Crozier, a celebrated poet who has written 17 books, received her master's of arts degree from the U of A in 1980. Since then, she has gone on to inspire and mentor other writers and artists as a teacher in places such as the Banff School of Fine Arts and the Saskatchewan Summer School of the Arts. Since 1991, Crozier has taught at the University of Victoria where she currently serves as the chair of the writing department.

Shining a headlight on deer crossings

University of Alberta researchers have produced a map of Edmonton that predicts the most likely locations where vehicles will collide with deer. The hot spots for deer-versus-vehicle collisions literally encircle Edmonton's entire city limit.

Insurance industry statistics show collisions between vehicles and deer can be fatal for drivers and their passengers, and the cost associated with such collisions is estimated to be upwards of \$300 million a year in Canada.

Mark Boyce, ecology professor and co-author of the paper on this mapping project, says the most dangerous roadways share three features: natural vegetation, including bushes and trees that run right up to the roadside; roads that pass through a landscape of farm fields and forests, and high speed limits.

The researchers analyzed data from 260 deer/vehicle collisions in the Edmonton area between 2003 and 2007.

"When heavy vegetation runs right up to the roadway drivers don't have a chance to avoid a deer popping out of nowhere," said Boyce. "The solution is to groom natural vegetation along busy rural roads, creating a buffer zone where drivers can see grazing and approaching animals."

One year and counting for groundbreaking conference

Next summer in Edmonton, you can expect to find researchers from around the world talking about everything from human epigenetics to the influence of education and community structure on human development. The amazing cognitive and perceptual capacities of infants to the causes of cognitive decline in aging will be discussed, as will evaluation of effective anti-bullying strategies to the impact of late life caregiving, and much more, when the biennial meeting of the International Society for the Study of Behavioural Development (ISSBD) will be held at the Shaw Convention Centre.

"We are thrilled that the world's leading scholars on human development will be coming to Edmonton," says Nancy Galambos, chair of the conference. Other highlights include invited addresses and invited symposia, a banquet at Fort Edmonton park, a reception and workshops for Early Career Scholars, and pre-conference workshops. More information on the conference and how to submit a proposal can be found at www.issbd2012.com.

University mourns loss of 'great connector'

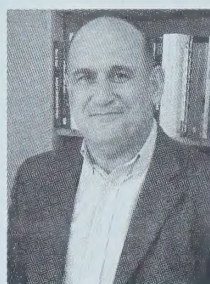
Michael Brown

Ibrahim Abu-Rabi, a world-renowned expert on contemporary Muslim thought, a voice of moderation and great University of Alberta ambassador, died suddenly and unexpectedly during a visit to Jordan July 2. He was 55.

Born in Palestine in 1956, Abu-Rabi, who held dual citizenship in the United States and Israel, received a bachelor of arts degree from the Birzeit University in Palestine in 1980. He went on to get a master of arts in political science degree from the University of Cincinnati in 1982 before attending Temple University in Pennsylvania, where he completed a second master's degree, this time in religious studies, and a PhD in Islamic studies in 1987.

Abu-Rabi left from Temple University for stops at Virginia Commonwealth University and the University of Texas at Austin, before taking a post at the Hartford Seminary in Connecticut, where he was professor at the Macdonald Center for the Study of Islam and Christian-Muslim Relations, beginning in 1991. He had a special interest in the study and practice of interfaith dialogue between the Islamic and Christian religious traditions, and specialized in issues of contemporary Islamic thought, particularly on religion and society, and mysticism.

In 2006, he was the Senior Fulbright Scholar in Singapore and Indonesia at the Institute of Defence and Strategic Studies at Nanyang Technological University in Singapore. He was also the senior editor of *The Muslim World*.



Ibrahim Abu-Rabi

In 2008, Abu-Rabi came to the U of A as the first holder of the Edmonton Council of Muslim Communities Chair in Islamic Studies, the first teaching and research chair of its kind in Canada.

"I am greatly saddened to learn of the sudden loss of one of our own, professor Ibrahim Abu-Rabi, chair of Islamic studies," said President Indira

Samarasekera. "As a mentor and a teacher, he was well known for his passion for teaching and his dedication to building understanding between people of various faiths."

"He will be remembered for his enthusiasm for his work, his unwavering support of his colleagues and students, and his care and compas-

sion for all."

Abu-Rabi was also a devoted researcher and a prolific writer, with dozens of titles to his credit, including his latest work, *The Contemporary Arab Reader on Political Islam* (University of Alberta Press, 2010), which is a collection of the writings of highly influential figures in the field of Islamism that attempts to address misunderstood notions of contemporary Islam.

In an interview done in the spring 2011 edition of *WOA (Work of Arts)*, the Faculty of Arts alumni magazine, about his latest work, Abu-Rabi said that, while there have been many books written in the West that purport to explain Islamism, virtually all have been written by westerners, and Islamist voices have remained largely absent.

"Most Islamist groups are pro-democracy and anti-violence, but you'd never know this from what's reported in the press," he said. "I wanted to

give Islamists the chance to speak for themselves."

Abu-Rabi believed that education or "soft power" is the key to a better dialogue between the Muslim world and the West, and that the West needs to appreciate the diversity of contemporary Muslim cultural and linguistic practices, as well as the contemporary Muslim search for democracy.

Commonality and understanding were not just ideas that Abu-Rabi taught, researched and wrote about, but how he lived his life, says Michael Frishkopf, a professor in the Department of Music and friend of Abu-Rabi.

"He had so much appreciation from his colleagues and his students because he made every effort to connect with people at every level," said Frishkopf, adding that Abu-Rabi's web of relationships extended around the globe. "He was really warm and a wonderful man who was always trying to pull people together—he was a great connector. That's the kind of man he was; he was very much a public intellectual but he was interested in real-world applications."

"I think that's why [his death] has been such a devastating loss for so many people."

U of A undergraduate student Mustafa Farooq wrote in a letter how he was struck by Abu-Rabi's "genial nature, his bearing, and his wisdom."

"He could meet anyone and instantaneously connect with them, and make them feel at ease." In addition, Farooq's letter talked about his mentor's devotion to both his research and his teaching.

"[Dr. Abu-Rabi] taught me that university research and involvement was about a struggle to make the world a better place, and that the struggle had to permeate every pore of your existence; and that included bringing the struggle to home." ■

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on the Web

Editor's note: The next issue of folio will be Aug. 19.

www.ualberta.ca/folio/

Best coaches open to self-examination

Jane Hurly

In the high-stakes world of elite-level athletics, coaches are more often than not regarded as the undisputed authority on what it takes to train an athlete to maximal performance potential. However, being placed on a pedestal often doesn't allow for proper reflection about their coaching practices or any margin of error when there are Olympic finals and medals at stake.



Jim Denison

As a consequence, coaches may not be doing the right thing for their athletes, says Jim Denison, co-author of a new paper on positive coaching and ethical practices for athlete development.

"Coaching is complex, continually changing and influenced greatly by the context, the athletes' circumstances and the developing relationship between the coach and the athlete," he said.

"Good coaching means thinking about these complexities and dealing

with them positively, proactively and ethically."

Denison says one of the greatest dangers is that coaches can become set in their practises of working with athletes, positioning themselves as experts,

who brook no criticism or questioning of their expertise. "They become entrenched in methodologies that worked in the past and they expect those methodologies to continue to work," says Denison.

"There's good research that shows that when coaches achieve this expert status they tend to want to maintain that," he says, "so admitting that you don't know becomes a threat to their expertise."

Denison, a sport sociologist and coach educator who directs the Canadian Athletics Coaching Centre, says coaches need to take an integrated approach to coaching and look at their athletes as individuals rather than trying to find a system or template they can apply to all and, importantly, learn to "problematize" an issue before coming up with

a solution. In essence, thinking critically about a problem, determining whether it is in fact a problem, and having the confidence to look at themselves because their behaviour might be contributing to a problem.

"Often the most successful coaches are the ones who are most willing to adopt a lifelong learning approach and to admit what they don't know," said Denison, who advocates "problem-setting," determining whether there is indeed a problem, before "problem-solving."

At the coaching centre, Denison and his team have developed a national coach mentorship program in partnership with Athletics Canada to enable this cultural shift from being the unquestioned expert to the thoughtful coach. "You cannot begin to 'problematize' until you acknowledge and recognize that the knowledge you have is socially constructed and is based on a lot of take-for-granted ideas and traditions that have become dominant. We invite coaches to think more critically about how they think and what they do, to 'problematize' their assumptions and to open their minds to look at their coaching practices critically and with the opportunity to try new things." ■

Organizer builds BRiC anew each year

Michael Davies-Venn

Canada Research Chair is trying something unconventional to elevate the University of Alberta's profile as a humanities and social science research hub.

Imre Szeman, Tier One Canada Research Chair in Cultural Studies and English, consulted with colleagues across the country when he was looking for a more effective way to mobilize research at the university. He found that Canada Research Chairs typically create institutes with fixed research topics. But he wanted something dynamic in form, so he created the Banff Summer Residency for Research in Culture, a residency program where pressing cultural issues, some with political and economic ramifications, could be addressed by researchers and "cultural producers," such as visual artists and writers, from across Canada and around the world.

"When you bring together a number of people who are all working in different ways on common topics, it creates all of the things that we try to support in the academies, such synergies between researchers," said Szeman. "I think new structures create new possibilities."

Szeman says the first residency program, held earlier this year, created an intellectual buzz by creating opportunities that will lead to future collaborative research among the 28 participants who came to Banff from around Canada and the rest of the world.

He adds advantage of having a new

topic each year, as opposed to creating an institute with a fixed topic, is that it ensures that over time the program maintains its sense of urgency on the topics it will address.

"I want BRiC to be a forum for answering questions that are pressing and to find out what young researchers are doing in the humanities and social sciences, because we're working at the cutting edge," he said. "We want to know the things that are at issue; for example, to find out what the things are that worry people and cultural ramifications of those things."

This year's topic, *On the Commons; or, Believing-Feeling-Acting Together*, is fitting because it looked at history to find answers for the future, says Szeman, and that, historically, societies were organized around the "commons," but that societies now have less in "common" than before.

"The idea of the 'commons' is that no one owned anything, such as land or ideas and that was interrupted by property ownership. We live now in an era where we're so far from that concept and we get stuck a lot dealing with issues such as intellectual property, for example," said Szeman. "There are problems looming and there doesn't seem to be vocabularies to address them, good ideas on how we get from where we are now to where we might want to be. We need ideas beyond a national consciousness to deal with global crisis."

"I think BRiC [this program] will make the U of A stand out a bit more in the humanities and social sciences research," Szeman said. ■

Iconic U of A classical music composer dies

Michael Brown

When famed University of Alberta composer Malcolm Forsyth came to Canada from his home in South Africa in 1968, he brought with him the ingredients for a musical sound that would both shake the Canadian classical music establishment and thrust him into a spotlight he was only too happy to share with the people around him. Forsyth, an extraordinary composer, mentor and colleague who epitomized loyalty, died July 5 after a lengthy battle with cancer. He was 74.



Malcolm Forsyth

"Malcolm Forsyth made a major contribution to music at the University of Alberta, in Edmonton, in Canada and throughout the world," said Leslie Cormack, dean of the Faculty of Arts. "During his 34 years teaching in the Department of Music, Dr. Forsyth influenced generations of composers and musicians and helped make Edmonton the great music city that it has become."

Although Forsyth became internationally known as one of the great Canadian conductors and composers, he was a musician first. Born in Pietermaritzburg, South Africa, in 1936, Forsyth picked up the trombone and seemingly never put it down. He took it to the University of Cape Town where he received a bachelor of music degree in 1963. Although Forsyth would change his major from trombone to conducting and composition, he played the trombone in the Cape Town Symphony Orchestra while simultaneously doing a master's in music in 1966 and his PhD in 1969.

Forsyth came to Canada in 1968 and joined the U of A's Department of Music, taking on a full load teaching theory, composition, conducting and trombone. He went on to hold the position of Composer-in-Residence and conductor of the University Symphony Orchestra. He was also a member of the Edmonton Symphony Orchestra for

11 years—three as bass trombonist and eight as principal.

It was, however, Forsyth's work as a composer that will stand the test of time. He is the only Canadian composer to have been nominated for six Best Classical Composition Juno Awards, receiving three Juno Awards in 1987, 1995 and 1998 for *Atayoskewin*, *Sketches from Natal* and *Electra Rising*, respectively. He was named Composer of the Year in 1988 by the Canadian Music Council, and in 2003 was made a Member of the Order of Canada, as well as winner of the Queen's Jubilee Medal.

While Forsyth had obvious gifts, it was his deep respect for the listener that drove his sound.

"I always have had a sense of responsibility to the audience," said Forsyth in 1996. "I am myself a dedicated audience member, dedicated to the idea of concert music that sweeps people away... everything I've done is with that experience in mind."

Acting chair in the Department of Music Janet Scott Hoyt, whose first year undergraduate student studying music at the U of A was also in 1968, says Forsyth's ability to make music accessible to the all was his true genius.

"He was South African, so he came to Canada with the sounds and the rhythms of South Africa in his veins," said Scott Hoyt. "A lot of his music incorporated the rhythms of the music there, and he made it his own; he infused it into something that wasn't African anymore—it was Canadian, but it had that special

flavour of something from afar."

Besides having charismatic, bigger-than-life presence in the department, Scott Hoyt says Forsyth was a great teacher.

"He was a fine composition teacher because he really reacted well to talent," she said, adding he was an uncompromising but very encouraging and stimulating mentor to young students. "What was striking is how many of his students went on to become professional musicians."

"I'm so glad to have had the opportunity to know him and be affected by that big brain and his big creative spirit."

Although Forsyth retired from the U of A in 2002, he never stopped working. His catalogue of 140 pieces, including three symphonies, was topped off in June when he travelled to Ottawa to attend the world premiere of his final work, *A Ballad of Canada*, performed by the National Arts Centre Orchestra, which employs Forsyth's daughter, Amanda, as principal cellist.

U of A choral music professor Len Ratzlaff was hopeful that his long-time friend would push on to hear the U of A's Department of Music premier *A Ballad of Canada* in November. The show will go on, Ratzlaff says, but not without some heavy hearts.

"He really was a great colleague," said Ratzlaff. "He was the kind of guy where you could just pick up where you left off. He would stop everything if you would be in the hallway. He never put anyone off as though he didn't have time for them. As a young teacher, I learned a lot from him. I must say that I am missing him a lot." ■

laurels

University of Alberta medical researcher Peter Smith has just been named one of the recipients of the Neuropathic Pain Research Awards. Smith, who works at the university's Department of Pharmacology, is researching the use of new medication combinations to reduce the effect of neuropathic pain in laboratory rats.

Rod Wasylishen, professor in the Department of Chemistry, has received the 2011 Eastern Analytical Symposium Award for outstanding achievements in magnetic resonance.

talks & events

Talks & Events listings do not accept submissions via fax, mail, email or phone. Please enter events you'd like to appear in folio and on Express News at: www.uofaweb.ualberta.ca/events/submit.cfm. A more comprehensive list of events is available online at www.events.ualberta.ca. Deadline: noon one week prior to publication. Entries will be edited for style and length.

Until July 28

Narrative Explorations in Visual Communication Design.

Exhibition of students works. Photography instructor: Eleanor Lazare. Design instructor: Lara Minja. Foyer, Rutherford South Rutherford Library, North and South (Humanities and Social Sciences)

Until Aug. 9

Big Basket Bonanza. To enter, drop by 209 HUB Mall Administration Office. This contest is open to all University of Alberta Students and Staff. Value \$400. 9 a.m.–3 p.m. 209 HUB Mall HUB International.

July 19–21, 26

Applying for NSERC Discovery Grants Engineering Seminar Series: Civil, Industrial and Systems Engineering. Given the new evaluation process at NSERC, this workshop is a must for those who want to submit high quality applications in this fall's 2011 NSERC Discovery Grant Program. 1:30–3:30 p.m., Natural Resources Engineering Facility, North Campus.

July 20

McLuhan's Birthday. On the eve of the 100th birthday of Marshall McLuhan, don't miss a festive evening, featuring performances, special displays, and cupcakes, Art Gallery of Alberta, Churchill Square, Edmonton, 7:30 p.m. Admission is free. This event

is part of the Herbert Marshall McLuhan Edmonton Centenary, hosted by the Faculty of Extension, University of Alberta.

July 27

5th annual WISEST Golf Tournament. The 5th annual WISEST Golf Tournament being held at the Links in Spruce Grove. It's an excellent opportunity to network and socialize with members of local industry, government, and academia all while supporting WISEST. Breakfast and registration begins at 7 a.m., shotgun start to Texas Scramble begins at 8 a.m.

Aug. 5–6

Department of Pharmacology, 50th Anniversary Symposium. In celebration of the Department of Pharmacology's 50th Anniversary, this symposium welcomes pharmacology staff, students and alumni. 8:30 a.m. Allard Family Lecture Theatre Katz Group Centre for Pharmacy and Health Research.

Aug. 10

A Taste of Technology 2.0. A Taste of Technology will showcase excellence and innovation in teaching with technology at the University of Alberta. A keynote will be presented by Larry Cuban from Stanford University entitled "Change without Reform: Technology Access, Use and Outcomes in U.S. Higher Education". 10 a.m.–2:30 p.m. TELUS Centre.



star light star bright

The University of Alberta opened up its newest observatory atop the Centennial Centre for Interdisciplinary Science July 5. The observatory will house three telescopes, with a range of diameters of 12, 14 and 20 inches. ■

Photos: Michael Holly Marketing and Communications

